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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/079,324 | 05/14/1998 | JAMES W. OVERBECK | A1-04 | 8241 |

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EXAMINER

NAGPAUL, JYOTI

ART UNIT

PAPER NUMBER

1743

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|-----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/079,324 | OVERBECK ET AL. |
| Examiner | Art Unit | |
| Jyoti Nagpaul | 1743 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 December 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 102-104 and 116-125 is/are pending in the application.
- 4a) Of the above claim(s) 42-60, 72-77, 79-83, 98-101 and 105-108 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 102-104 and 116-125 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/7/06.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Amendment filed on December 29, 2005 has been acknowledged. Claims 102-104 and 116-125 are pending. Claims 42-60,72-77,79-83,98-101 and 105-108 are withdrawn.

Response to Amendment

Rejection of Claims 102-104 as being anticipated by Quakenbush (US 5104705) has been withdrawn in light of applicant's amendments.

Election/Restrictions

Applicant's election with traverse of Group XII in the reply filed on March 26, 2004 and December 29, 2005 is acknowledged. The traversal is on the ground(s) that sever group of inventions can be classified in the same class and subclass. This is not found persuasive because even though the groups may be classified in the same class and subclass it does not necessarily exclude different and independent inventions from being in the same class and subclass.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the fluid retaining aperture formed by an element including a multi-helical shape, fluid retaining aperture formed by a closed cylinder, formed by an open rectangular ring, and formed by a helical member as recited in Claims 122-125 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 122-125** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention. Claim 122 recites “including a multi-turn helical shape” there is no support for this recitation in applicant’s disclosure. Claim 123 recites “formed by a closed cylinder” there is no support for this recitation in applicant’s disclosure. Claim 124 recites “formed by an open rectangular ring” there is no support for this recitation in applicant’s disclosure. Claims 125 recites, “formed by a helical member” there is no support for this in applicant’s disclosure. The recitations above are not supported by applicant’s disclosure and thus are considered new matter.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 102-104 and 116-121 are rejected under 35 U.S.C. 102(b) as being anticipated by Roach (US 5770151).**

Roach teaches a microspot deposition system. The system comprises a fluid retaining aperture (34) and a deposit device (10). The fluid retaining aperture (34) being constructed and cooperatively arranged with the deposit device (10) so that the deposit device (10) can transit to pick up a drop of fluid to be deposited on a deposit surface (54A), internal surfaces defining the aperture having a surface roughness that increases its wettability. Roach teaches, “During a collection and deposition procedure, capillary device 10 may alternately collect and deposit differing liquids contained in receptacle 42, forming a plurality of spots 54 on surface 52. In this fashion, capillary device 10

may collect a liquid containing a biological sample, e.g., antibodies, from well 24A and deposit the liquid at spot 54A. Subsequently, capillary device 10 may collect a liquid from well 24B, containing a different biological sample, e.g., antigens. To prevent cross-contamination between wells 24A and 24B, capillary device 10 may be periodically inserted into a well 24C, or a general tank, containing a wash liquid and then blotted to rapidly draw out all liquid from device 10. The deposition efficiency allows the process to maintain cross-contamination below 1 part per 1000. The deposition efficiency in part is due to gap 34. Narrowing gap 34 allows a strong capillary attraction to develop between the liquid in lumen 32 and the blotter (not shown), which removes from capillary device 10 essentially all of the liquid contained therein. In addition to narrowing gap 34, as discussed above, cross-contamination is further reduced by ensuring that cylindrical wall 26 is free of burrs. Also, providing a periphery 58 of open end 30 that forms a sharp corner with respect to cylindrical wall 26 reduces cross-contamination by increasing deposition efficiency. By substantially reducing the periodicity of inserting capillary device 10 into a wash liquid, the number of collection and deposition sequences per unit time is increased." (See Col. 5, Lines 8-34) (See Figure 2) Roach further teaches, "Capillary device 10 may be manufactured from any suitable material; for example, it may be formed of glass, metal, ceramics or one of a plurality of polymers, such as polystyrene, polypropylene acrylics, polyvinyl-chloride or polycarbonate. However, it is preferred that the entire length of cylindrical wall 26 be formed from a rigid, wettable material that resists deformation." (See Col. 4, Lines 30-36) Roach further teaches the surface roughness is at least 100 microinch.

Roach teaches, "The dimensions of both lumen 32 and gap 34 should facilitate collection and deposition of liquids via capillary action. To that end, cylindrical wall 26 includes an outside diameter 38 typically in the range of 0.005 to 0.10 inch. Lumen 32 has a constant, or decreasing, diameter 40, along the length of wall 26, in the range of 0.002 to 0.09 inch. A first width 42 of gap 34 as measured proximate to closed end 28 is equal to or narrower than diameter 40, measuring approximately 0.0040 inch." (See Col. 4, Lines 22-30) Roach further teaches the fluid retaining aperture (34) forms a mobile fluid storage device (34) generally movable with the deposit device (10). Roach teaches, "Liquid moves into lumen 32 via capillary action with cylindrical wall 26, forming a meniscus 46 proximate to open end 30. Gap 34 facilitates rapid influx of liquid into lumen 32 by allowing air, present therein, to rapidly exhaust from capillary device 10 as liquid moves along cylindrical wall 26. In this fashion, the length of gap 34 defines the volume of liquid that may be contained in lumen 32. Upon reaching a termini 48 of gap 34, liquid may no longer enter the capillary device via capillary action, because the tube is plugged. The gap 34 also facilitates more efficient cleaning of the capillary device." (See Col. 4, Lines 37-49) Roach teaches the mobile local fluid storage device (34) is constructed and arranged to be replenished from a remotely located relatively large reservoir (24). Roach further teaches the large reservoir (24) is constructed to store a multiplicity of isolated fluid volumes (24A,24B,24C). Roach further teaches the mobile local fluid storage device (34) is constructed to be inserted into a supply well (24C) of a well plate (24). (See Figure 1) Roach teaches, "capillary device 10 may be periodically inserted into a well 24C, or a general tank, containing a

wash liquid and then blotted to rapidly draw out all liquid from device 10.” (See Col. 5, Lines 17-20) Roach does not specifically disclose the fluid-retaining aperture is formed by a circular ring. However, it is inherent if there was no gap (34), the fluid retaining aperture (58) is formed by a circular ring. Roach does teach, “if gap 34 were not present, meniscus 56 would form in lumen 32, proximate to open end 30. As compared to meniscus 46, meniscus 56 is more concave, providing meniscus 56 with more surface area and curvature.” (See Col. 4, Lines 60-61) According to Figures 3-7, the fluid-retaining aperture (34,134,234) is formed by an open rectangular ring.

Response to Arguments

Applicant's arguments with respect to claims 102-104 and 116-125 have been considered but are moot in view of the new ground(s) of rejection. Please refer above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Nagpaul whose telephone number is 571-272-1273. The examiner can normally be reached on Monday thru Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN


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